

## WHAT IS CLAIMED IS:

1. An impact cushion mechanism for use in an optical disc drive, the optical disc drive including an optical pick up head, two guide bars supporting the optical pick up head, a driving mechanism for driving the optical pick up head to move back and forth on the guide bar, and a connecting device connecting the optical pick up head and the driving mechanism, the impact cushion mechanism comprising:

two elastic objects provided at two sides of the connecting part to prevent the connecting part from colliding with other components in the optical disc drive when the optical pick up head is moving on the guide bars.

2. The impact cushion mechanism according to claim 1, wherein the elastic object is a spring.

3. The impact cushion mechanism according to claim 1, wherein the elastic object is an U-shaped elastic piece.

4. The impact cushion mechanism according to claim 3, wherein the U-shaped elastic piece and the connecting device are integrated as a whole.

5. The impact cushion mechanism according to claim 1, wherein the connecting device is a rack.

6. The impact cushion mechanism head according to claim 1, wherein

the connecting device further connects with a driving mechanism advances the pick up head, comprising a gear and a motor.

7. The impact cushion mechanism according to claim 1, wherein the connecting device further connects with a driving mechanism moves the pick  
5 up head, comprising a threaded rod and a motor.

8. An optical disc drive having an impact cushion mechanism, comprising:

an optical pick up head ;

two guide bars supporting the optical pick up head ; ,

10 a driving mechanism for driving the optical pick up head to move back and forth on the guide bar ;

a connecting device connecting the optical pick up head and the driving mechanism ; and

15 two elastic objects provided at two sides of the connecting part to prevent the connecting part from colliding with other components in the optical disc drive when the optical pick up head is moving on the guide bars.

9. The optical disc drive according to claim 8, further comprising a chassis, wherein the impact the force can be reduced by the elastic objects

when the connecting device collides with the chassis.

10. The optical disc drive according to claim 8, wherein the elastic objects is an U-shaped elastic piece.

5 11. The optical disc drive according to claim 10, wherein the U-shaped elastic piece and the connecting device are integrated as a whole.

12. The optical disc drive according to claim 8, wherein the driving mechanism further comprises a gear and a motor.

13. The optical disc drive according to claim 8, wherein the driving mechanism further comprises a threaded rod and a motor.

10 14. The optical disc drive according to claim 8, wherein the connecting device is a rack.

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